

**REMARKS**

Upon entry of the present Amendment, claims 1-8, 11-18, 20, 23-25, 28, 32-34, 36-38, 40, 41, 43-48, 50-52, 68 and 69 will be pending. Claims 9, 10, 19, 21, 22, 26, 27, 29-31, 35, 39, 42, 49, 70 and 71 are canceled. Applicants reserve the rights to pursue the canceled subject matter in a subsequent application. Support for amended claims 1 and 68 can be found throughout the application and, *inter alia*, in the original claims 27, 34, 36, 37, 40, 41, 43, 44 and/or 45. Support for amended claims 1 and 68 for reciting “a signal source that is external to said chip” can be found throughout the application and, *inter alia*, at page 61, line 23, page 63, line 8, page 64, line 6, page 65, line 1, page 66, lines 17-18 and line 33, page 67, line 12, page 68, line 2 and line 26, page 70, line 2, page 71, line 23 of the present specification, and in Figure 1(C), Figure 4, Figure 5(A), Figure 6, Figure 8(C), Figure 9(A), Figure 9(B), Figure 10(A), Figure 10(B), Figure 11(C), Figure 11(D), Figure 11(E), Figure 12(C), Figure 11(D), Figure 11(E), Figure 13(C), Figure 14(C) and Figure 15(B). Support for the amended claim 8 can be found throughout the application and, *inter alia*, in the original claim 8. Claims 20, 23-25 and 27 are amended to conform with the amendment of claim 1. Support for amended claim 46 for reciting “at least 5% of the moiety to be manipulated is coupled onto surface of the binding partner” can be found throughout the application and, *inter alia*, at page 20, lines 2-3 of the present specification. Support for amended claim 47 for reciting “at least 90% of the moiety to be manipulated is coupled onto surface of the binding partner” can be found throughout the application and, *inter alia*, at page 20, lines 11-12 of the present specification. Figure 1(C), Figure 4, Figure 5(A), Figure 6, Figure 8(C), Figure 9(A), Figure 9(B), Figure 10(A), Figure 10(B), Figure 11(C), Figure 11(D), Figure 11(E), Figure 12(C), Figure 11(D), Figure 11(E), Figure 13(C), Figure 14(C) and Figure 15(B) are amended to indicate the use of various external signal source. The above-described amendments do not introduce any new matter into the present application.

**Allowable Subject Matter**

Applicants appreciate the Examiner’s recognition that claims 34, 36, 37, 38, 40, 41, and 43-45 are allowable.

### **Drawings**

The drawings are objected to under 37 CFR 1.83(a). The Examiner states that the drawings must show every feature of the invention specified in the claims. The Examiner also states that, 1) the "structure external to the chip" wherein the structure produces a "magnetic force" recited in claims 19, 21, 22, and 29; 2) the "structure external to the chip" wherein the structure produces an "electrostatic force" recited in claims 19, 25, 29, and 49; 3) the "structure external to the chip" wherein the structure produces a "mechanical force" recited in claims 19, 26, . " 29, and 49; 4) the "structure external to the chip" wherein the structure produces an "optical radiation force" recited in claims 19, 27, 29, and 49; 5) the "structure external to the chip" wherein the structure produces a "thermal convention force" recited in claim 19 must be shown or the feature(s) canceled from the claim(s).

Applicants respectfully submit that the amendment of claims 1 and 68 replacing "a structure that is external to said chip" with "a signal source that is external to said chip" coupled with the corresponding changes in Figure 1(C), Figure 4, Figure 5(A), Figure 6, Figure 8(C), Figure 9(A), Figure 9(B), Figure 10(A), Figure 10(B), Figure 11(C), Figure 11(D), Figure 11(E), Figure 12(C), Figure 11(D), Figure 11(E), Figure 13(C), Figure 14(C) and Figure 15(B) renders the objection moot. In addition, applicants point out that "conventional features disclosed in the description and claims, where their detailed illustration is not essential for a proper understanding of the invention, should be illustrated in the drawing in the form of a graphical drawing symbol or a labeled representation (e.g., a labeled rectangular box)." 37 C.F.R. § 1.83. Accordingly, applicants respectfully submit that the "External Electrical Signal Source" or "External Electrical 4-phase Signal Source" in the amended Figure 1(C), Figure 4, Figure 5(A), Figure 6, Figure 8(C), Figure 9(A), Figure 9(B), Figure 10(A), Figure 10(B), Figure 11(C), Figure 11(D), Figure 11(E), Figure 12(C), Figure 11(D), Figure 11(E), Figure 13(C), Figure 14(C) and Figure 15(B) are conventional features and representing these factures in rectangular boxes conforms with 37 C.F.R. § 1.83.

It is respectfully submitted that the objections to the drawings are overcome by the above remarks and/or amendments and must be withdrawn.

**Rejections under 35 U.S.C. § 112**Non-enablement

Claims 8-12, 19-27, 29 and 49 are rejected under 35 U.S.C. 112, first paragraph, as allegedly failing to comply with the enablement requirement. The claim(s) allegedly contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Applicants respectfully submit that the this rejection is rendered moot by the amendment of claim 8 and cancellation of claims 19, 27, 29 and 49. In particular, applicants point out that how to generate an optical radiation force effected via a laser tweezers is taught in the present specification and is known in the art. (See the present specification at page 41, lines 4-32.)

Indefiniteness

Claims 30, 31, 46, 47 and 70 are rejected under 35 U.S.C. 112, second paragraph, as being allegedly indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicants respectfully submit that the this rejection is rendered moot by the amendment of claims 46 and 47 and cancellation of claims 30, 31, and 70.

It is respectfully submitted that the rejections of claims 8-12, 19-27, 29-31, 46, 47, 49 and 70 under 35 U.S.C. § 112 are overcome by the above remarks and/or amendments and must be withdrawn.

**Rejections under 35 U.S.C. §§ 102-103**

Claims 1-32, 35, 39, 42, 46, 47, 50-52, 70 and 71 are rejected under 35 U.S.C. 102(e) as being allegedly anticipated by Zhou et al., U.S. patent No. 6,355,491.

Claims 1-7,13-25, 29, 31-33, 39 and 46-48 are rejected under 35 U.S.C. 102(b) as being allegedly anticipated by Apffel et al., U.S. patent No. 5,705,813.

Claims 1-7,13, 15, 16, 19-25, 28, 31, 32, 48, 50, 52 and 68 are rejected under 35 U.S.C. 102(b) as being allegedly anticipated by Fuchs et al., U.S. patent No. 5,630,924.

Claims 1-7, 13, 15, 16, 19, 26, 29, 49 and 50 are rejected under 35 U.S.C. 102(e) as being allegedly anticipated by Wu et al., U.S. patent No. 6,221,677.

Claims 1-13, 15, 16, 19-27, 29, 31, 32, 39, 46-50 and 52 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Liu, U.S. patent No. 6,159,749.

Claim 69 is rejected under 35 U.S.C. 103(a) as being allegedly unpatentable over Fuchs et al., U.S. patent No. 5,630,924.

Accordingly, claims 34, 36, 37, 38, 40, 41, and 43-45 are free of the art. Applicants respectfully submit that all art based rejections are overcome because all pending claims incorporate at least one of the limitations of claims 34, 36, 37, 38, 40, 41, and 43-45. It is respectfully submitted that all art based rejections under 35 U.S.C. §§ 102-103 are overcome by the above remarks and/or amendments and must be withdrawn.

**CONCLUSIONS**

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue. If it is determined that a telephone conference would expedite the prosecution of this application, the Examiner is invited to telephone the undersigned at the number given below.

In the event the U.S. Patent and Trademark office determines that an extension and/or other relief is required, applicant petitions for any required relief including extensions of time and authorizes the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to Deposit Account No. 03-1952 referencing docket no. 471842000100. However, the Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

Dated: August 4, 2004

Respectfully submitted,

By 

Peng Chen

Registration No.: 43,543

MORRISON & FOERSTER LLP

3811 Valley Centre Drive, Suite 500

San Diego, California 92130

(858) 720-5117